

REMARKS

The amendments set forth above are formal in nature and do not raise any new issues. Accordingly the amendments should be entered under 37 CFR 1.116. Applicant requests that if the examiner determines that the amendments should not be entered, he should contact the undersigned by telephone to discuss the matter before issuing an Advisory Action.

Applicant gratefully acknowledges that the examiner has indicated that claims 2-9 contain allowable subject matter. Claims 2, 7 and 9 have been rewritten in independent form including all the limitations of claim 1. Applicant therefore believes that claims 2-9 are allowable.

Claims 11, 13 and 14 have been cancelled.

Claim 1 stands rejected as being obvious in view of Ueno et al.

In connection with claim 1 the examiner has stated that "load board" is a broad term that could refer to a variety of devices including the LSI under test (FIG. 16, 22) of Ueno et al. A search of the PTO data base reveals ten patents with the term "load board" in the title, all relating to integrated circuit testing. Applicant submits that the term "load board" in context with an integrated circuit tester is well understood in the art to mean a printed circuit board that is used as an interface between a tester and a device under test, and that therefore the LSI under test of Ueno et al. cannot properly be construed as a load board.

Claim 1 has been amended to include the features of cancelled claim 14. Claim 1, as now amended, states that the conductive switch element is displaceable relative to the contact pins recited in claim 1 and is in either electrically conductive contact with, or electrically isolated from, the contact pins, as opposed to "one or more contact pins" as detailed in the original claim 1. In the "second position" defined in claim 1, the switch element creates a short circuit between all of the contact pins and any other electrically conductive path the switch element is in contact with. In the preferred embodiment of the invention the switch element short circuits each of the contact pins to electrical ground.

Ueno et al. discloses an integrated circuit tester (FIG. 16, 24) for testing unpackaged LSI chips 22, the tester featuring a plurality of contact pins B1-B10 connected to a plurality of tester resources

through a plurality of switches S1-S10, where each contact pin is connected to a single switch and each switch is connected to a single tester resource. The contact pins of Ueno et al are separated from each other by a distance that is less than the spacing between pads 23a-23d on the various LSI chip designs. This combination of features is advantageous for use in an environment where a variety of unpackaged LSI chips are to be tested, as the tester will be compatible with a variety of LSI topologies.

As an example, consider two contact pins B1 and B2 (FIG. 16) both of which are in electrically conductive contact with a single pad 23a of the LSI circuit 22. One contact pin's B1 associated switch S1 is open and the switch S2 associated with the second contact pin B2 is closed, ensuring that the pad 23a of the LSI chip 22 is electrically connected to only one tester resource. If the contact pin's associated switches S1 and S2 were replaced by direct, electrically conductive, connections, there would be an electrical short circuit between the tester resources connected to the two contact pins B1 and B2. At best this would cause inaccurate test results and at worse both the LSI chip 22 and the tester 24 could be damaged.

However, if the tester 24 is used to test a second LSI chip (not shown) with a different pattern of contact pads, it may be that the two contact pins B1 and B2 are in electrically conductive contact with two distinct contact pads (not shown) and thus it may be advantageous for both switches S1 and S2 to be closed.

The above example is intended to show that, in order to function as intended, Ueno et al requires that there be independent control over which contact pins are connected to the tester and which are not. Such functionality could not be achieved using a single switch element to short circuit all the contact pins. Considering Ueno et al as a whole, there is nothing to lead a person of ordinary skill in the art to conclude that a switch element that makes electrical contact with a plurality of contact pins, as recited in claim 1, would improve the design of Ueno et al. Therefore applicant submits that amended claim 1 is patentable over Ueno et al.

Claims 12, 13 and 14 stand rejected as being anticipated by Sokolich. Applicant believes that the examiner was incorrect in including claim 14 in the anticipation rejection, as, unlike claims 12

and 13, claim 14 is dependent on claim 1, which was not rejected on the ground of anticipation.

A claim is anticipated only if each and every element recited in the claim is also found in the reference. Among other features, claim 12 recites a contact pin block, at least two contact pins mounted in the contact pin block and a displaceable switch element also mounted in the contact pin block. Thus, for Sokolich to anticipate claim 12, Sokolich must also teach a contact pin block, at least two contact pins mounted in the contact pin block and a displaceable switch element also mounted in the contact pin block. The lack of any of the aforementioned elements would, by definition, preclude an anticipation rejection.

The examiner has stated that the insulating plate 10 and contact assemblies 32 of Sokolich are analogous, respectively, to the contact pin block and contact pins of claim 12 and that the plurality of switches C1-10, B1-10 in Sokolich are equivalent to the displaceable switch element. (While the examiner cited reference 15 in Sokolich as the counterpart of the contact pins of claim 12, applicant believes that this was in error, as reference 15 pertains only to the backend of the contact assemblies 32.) It is clear however, from examination of Sokolich, that none of the switches C1-C10, B1-B10 are mounted in the insulating plate 10. Consequently Sokolich does not teach each and every element found in claim 12. Therefore Sokolich does not anticipate claim 12.

Furthermore, applicant believes that the arguments presented above regarding claim 1 also applies to amended claim 12. Applicant therefore submits that claim 12 is patentable.

Respectfully submitted,



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